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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,311	08/03/2006	Toshio Kazama	80315(302753)	6871
21874	7590	10/20/2008		
EDWARDS ANGELL PALMER & DODGE LLP			EXAMINER	
P.O. BOX 55874			GILMAN, ALEXANDER	
BOSTON, MA 02205				
		ART UNIT	PAPER NUMBER	
		2833		
		MAIL DATE	DELIVERY MODE	
		10/20/2008	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/588,311

**Applicant(s)**

KAZAMA ET AL.

**Examiner**

Alexander D. Gilman

**Art Unit**

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-8 and 11-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-8, 11-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CI/CD)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 3/28/08

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6-8, 11, 23, 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Tate et al.

With regard to claim 6, Tate (US 6,861,862) disclose a needle-like member that constitutes a conductive contact which electrically connects a first object (21) to a second object (13), the needle-like member comprising:

a columnar member (30) having a first end and a second end;

a through hole that connects the first end to the second end; and

a contact member (17) configured to electrically contact with the first object and arranged at the first end.

With regard to claims 7, 8, Tate discloses that the second object is a circuit board (13) that includes a circuit for generating and transmitting an electrical signal to be supplied to the first object.

With regard to claim 11, Tate discloses that the contact member (17) is located near a periphery of the columnar member in a longitudinal direction to come in contact with a periphery of a connecting electrode of the first object.

With regard to claim 23, Tate discloses a needle-like member that constitutes a conductive contact which electrically connects a first object to a second object, the needle-like member comprising:

a columnar member(14) having a first end and a second end, and a through hole that connects the first end to the second end; and

a contact member (no.r.n. – a contact disposed opposite to 16) configured to electrically contact with the first object and arranged at the first end,

wherein the columnar member and the contact member are integrally formed.

With regard to claim 27, Tate discloses that the through hole has hole portions with different inner diameters (40, 36).

Claims 6-8, 11, 12- 15, 17-21, 23- 26, 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Vinther et al

With regard to claims 12, 18, 23, 6, Vinther et al (US 6,396,293) disclose (Fig. 2) conductive contact that electrically connects a first object to a second object, the conductive contact comprising:

a first needle-like member (18) that includes a columnar member having  
a first end and a second end;

a through hole that connects the first end to the second end; and

a contact member (22) integrally formed with columnar member (claim 23) and configured to electrically contact with the first object and arranged  
at the first end; and

a second needle-like member (12) that is arranged to electrically connect to the first needle-like member, and slides in the through hole of the first needle-like member; and

a spring member (16) that is fixed to the first needle-like member and surrounds an outer surface of the columnar member., and applies an elastic force on the second needle-like member present in the through hole.

With regard to claims 13, 14, 19,20, 24, 25, Vinther et al disclose that the second object (col. 1, lines 4-11) is a circuit that generates and transmits an electrical signal to be supplied to the first object.

With regard to claim 15, 21, 26, 27, 6, Vinther et al disclose that the through hole has a constant diameter (Fig. 2,6).

Art Unit: 2833

With regard to claim 17, Vinther et al disclose that the second needle-like member includes a support member (36) that is slidable in the longitudinal direction while being in contact with an inner surface of the through hole; and a contact member (26) that is integrally formed with the support member, and configured to electrically contact with the second object.

With regard to claim 18, Vinther et al disclose (Fi. 2, 9) conductive contact unit comprising:

a conductive contact including

a needle-like member that includes a columnar member (14) having a first end and a second end, a through hole that connects the first end to the second end, and a contact member (22) configured to electrically contact with an object; and

a spring member (16) that biases the needle-like member in a direction perpendicular to the object; and

a conductive contact holder (100) that includes a holder hole for accommodating the conductive contact.

With regard to claims 11, 28, Vinther et al disclose the contact member (22) is located near a periphery of the columnar member in a longitudinal direction to come in contact with a periphery of a connecting electrode of the first object.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vinther in view of Kagami.

With regard to claim 22, Vinther et al do not disclose that the columnar member has the through hole portions with different inner diameters.

Kagami et al (US 7,049,838) disclose the columnar member having the end (125) of the through hole with different inner diameter.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to enlarge the end of the through hole, as taught by Kagami, to meet a geometry of a first object terminals.

On the other hand, the spec does not disclose what is a functional necessity of the variation in the inner diameter of the hole, so it can be considered as a design alternative.

### ***Response to Arguments***

Applicant's arguments with respect to EP'827 rejection have been considered but are moot in view of the new ground(s) of rejection.

Also, Applicant argues that Tote fails to disclose that the through hole has hole portions with different inner diameters.

However, as it was shown in the rejection, Tate discloses (Fig. 3) that the through hole has hole portions with different inner diameters (40, 36).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander D. Gilman whose telephone number is 571 272-2004. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee S. Luebke can be reached on 571 272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander D Gilman/  
Primary Examiner  
Art Unit 2833

10/11/08